

Application No. 08/480,908
Amendment dated February 13, 2007
Reply to Office Action of September 19, 2006

REMARKS

Applicant has added independent claims 195, 196, and 197. Please note that claims 195, 196, and 197 correspond to allowed claims 154, 169, and 195, respectively, of U.S. Patent Application Serial No. 10/047,545. U.S. Patent Application Serial No. 10/047,545 is a continuation of the instant application. Upon receipt of a Notice of Allowance in the instant application, Applicant plans to withdrawal claims 154, 169, and 195 from U.S. Patent Application Serial No. 10/047,545 in favor of the claims included in the instant application.

In the Office Action, the Examiner rejected claims 1-7, 9, 11-25, 28-31, 33-75, 77-153, 158, 159, 164, 165, 170, 171, 176, 177, and 182-192 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,683,463 to Godefroy et al. ("Godefroy") in view of U.S. Patent No. 5,458,638 to Kuslich ("Kuslich"). Applicant respectfully traverses the rejection.

The Examiner erroneously contends that many elements of the claims are taught by each of the references. The Examiner contends that Godefroy discloses an implant having a body including "a thread (13, 14)," "the body is substantially cylindrical shaped (Fig. 1)," and "the thread radius is variable (because of the shape of the body)." (Office Action, paragraph bridging pages 2 and 3). Godefroy teaches an implant having a body with "annular external ribs 13, 14 and 16" that "are preferably toothed," not a thread. (Godefroy, col. 2, lines 58-59; Fig. 6). The body of the Godefroy implant is frustoconical, not cylindrical. (Godefroy, col. 3, lines 11-13; Figs. 1 and 2). Godefroy cannot teach a variable thread radius since Godefroy does not teach the use of a thread on the exterior surface of the implant.

The Examiner further contends that Kuslich teaches "threads (26, 28) along truncated walls (fig. 2)." (Office Action, paragraph bridging pages 2-3). Contrary to the Examiner's contention, Kuslich does not teach truncated walls in the threaded embodiment of the implant. The threaded implant of Kuslich is "cylindrical." (See Kuslich, col. 4, lines 7-9; and Fig. 4, a cross sectional view of figure 2 which the Examiner contends shows the truncated sides).

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Applicant respectfully submits that the Examiner's stated motivation for combining the disclosure of Godefroy with the disclosure of Kuslich is improper because it does not state why a person of ordinary skill in the art would seek to replace the annular ribs (which are preferably toothed) of Godefroy with the threads of Kuslich. (See MPEP § 2143.01, "the Prior Art Must Suggest the Desirability of the Claimed Invention," page 2100-129, col. 2 (May 2004)). The Examiner states that:

"[i]t would have been obvious to one having ordinary skill in the art at the time that the invention was made that the spinal implant disclosed by Godefroy could be fabricated with threads along the truncated side walls, means for closing body wells on the body and threads along the entire walls of the truncated implant. The threads on the truncated planar walls would assist in holding the device in place."

(Office Action, paragraph bridging pages 2 and 3). However, as discussed above, Godefroy teaches the use of annular ribs 13, 14, and 16 to hold the implant in place. (Godefroy, col. 2, lines 49-51; Fig. 1). Godefroy teaches that "external ribs 13, 14 and 16 are preferably toothed to prevent both axial movement in translation and rotation of the implant." (Godefroy, col. 2, lines 58-61 (emphasis added)). None of the Examiner's statements explain why the annular ribs of Godefroy should be replaced by the threads of Kuslich. Furthermore, the teachings of Godefroy do not support such a modification. Replacing the ribs of Godefroy with the threads of Kuslich would assist in the rotation of the implant (Kuslich, col. 4, lines 17-20 and 40-45), and would, contrary to the Examiner's assertions, render the Godefroy implant unsuitable for its intended purpose of resisting rotation of the implant. (See MPEP § 2143.01, "The Proposed Modification Cannot Render the Prior Art Unsatisfactory For its Intended Purpose," page 2100-129, col. 2 (May 2004)).

Independent claim 183 recites a fusion device having "a pair of substantially flat portions" and "at least one circumferentially continuous thread extending along a majority of the length of said elongated body." Independent claim 186 recites "a pair of substantially flat portions" where the substantially flat portions are "interrupted by said thread." The Examiner states as partial support to his motivation for combining Godefroy with Kuslich that "[t]he threads on the truncated planar walls would assist in

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holding the device in place." (Office Action, paragraph bridging pages 2 and 3). The Examiner's asserted motivation is opposite to the teaching of Godefroy. As set forth in Godefroy, "[t]he side surfaces 5 and 6 can comprise a flat portion on the outside surface, as shown in FIGS. 1, 4, 6 and 9, this allows the quantity of material from which the implant is made to be slightly reduced." (Godefroy, col. 3, lines 35-39). Placing a thread on the truncated sides of the Godefroy implant adds material to the implant, which is contrary to Godefroy's goal of reducing implant material by having truncated sides. Applicant submits that the Examiner's rejection of claims 1-7, 9, 11-25, 28-31, 33-75, 77-153, 158, 159, 164, 165, 170, 171, 176, 177, and 182-192 under 35 U.S.C. § 103(a) as being unpatentable over Godefroy has been overcome.

The Examiner rejected claims 8, 32, and 76 under 35 U.S.C. § 103(a) as being unpatentable over the references as applied to the claims above, and further in view of U.S. Patent No. 4,904,260 to Ray. Applicant submits that the rejections over claims 8, 32, and 76 are rendered moot at least because they depend from an allowable independent claim, or claims dependent therefrom.

The Examiner rejected dependent claims 154-156, 160-162, 166-168, 172-174, and 178-180 under 35 U.S.C. § 103(a) as being unpatentable over the references as applied to the claims above, and further in view of U.S. Patent No. 6,118,043 to Nies et al., along with U.S. Patent No. 5,133,755 to Brekke. Applicant submits that the rejections over claims 154-156, 160-162, 166-168, 172-174, and 178-180 are rendered moot at least because they depend from an allowable independent claim, or claims dependent therefrom.

In conclusion, Applicant submits that independent claims 1, 25, 49, 69, 108, 144, 183, 186, 195, 196, and 197 are patentable and that the claims dependent therefrom either directly or indirectly, are patentable at least due to their dependency from an allowable independent claim.

In view of the foregoing remarks, it is respectfully submitted that the claims, as amended, are patentable. Therefore, it is requested that the Examiner reconsider the

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outstanding rejections in view of the preceding comments. Issuance of a timely Notice of Allowance of the claims is earnestly solicited.

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this reply, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 50-3726.

Respectfully submitted,

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